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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/665,142

09/22/2003

Isao Kakuhari

2003\_1330A

5803

513 7590 10/04/2007  
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EXAMINER

LAO, LUN S

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

10/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/665,142

**Applicant(s)**

KAKUHARI ET AL.

**Examiner**

Lun-See Lao

**Art Unit**

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Introduction***

1. This action is in response to the amendment filed on 07-11-2007. Claims 1-16 have been cancelled and claims 17-36 have been added. Claims 17-36 are pending.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 25 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 25, recites "a noise detector to be positioned outside the predetermined space", which is unclear to the examiner what is "a noise detector to be positioned outside the predetermined space" referring to.

Claim 35 is essentially similar to claim 25 and is rejected for the reason stated above apropos to claim 25.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 17-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Sheplak et al (US PAT 6,782,109).

Consider claim 17 Sheplak teaches that a noise reduction apparatus for reducing noise propagated toward a predetermined space on one side of a wall from an external noise source on another side of the wall, comprising:

structure, to be attached to a surface of the wall so as to face the external noise source and thereby block a noise propagation path, for generating enclosed spaces for noise reduction between said structure and the wall (se fig.17);

control sound sources(1718 in fig. 17) for radiating sound into the enclosed spaces;  
sound detectors (1762) to be placed within the enclosed spaces, respectively, for detecting sound propagated from the external noise source through said control sound sources; and

a control arrangement (1760) for causing said control sound sources to radiate sound into the enclosed spaces so as to minimize sound to be detected by said sound detectors, based on results corresponding to the sound as detected by said sound detectors (see fig. 17 and see col. 13 line 55-col. 14 line 53, col. 14 line 59-col. 15 line 32).

Consider claim 18-20 Sheplak teaches the noise reduction apparatus wherein said structure to be attached to the surface of the wall comprises plural adjacent housings

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(see fig. 17); an vibration damping sections, each of said vibration damping sections for damping a vibration in a position of a barycenter of a corresponding one of the enclosed spaces (see fig. 17 and see col. 13 line 55-col. 14 line 53); and said each of said vibration damping sections (1754, 1714 in fig. 17) comprises a pole for connecting a corresponding one of said housings with the wall (see fig. 17 and see col. 13 line 55-col. 14 line 53).

Consider claims 21-23 Sheplak teaches the noise reduction apparatus wherein a corresponding one of said sound detectors ((1756, 1754) in fig. 17) is connected to a corresponding said pole(see fig. 17 and see col. 13 line 55-col. 14 line 53); and wherein said each of said vibration damping sections(1754, 1714 in fig. 17) comprises a plummet to be positioned at the barycenter of the corresponding one of the enclosed spaces(see fig. 17 and see col. 13 line 55-col. 14 line 53); and a film (reads on diapham (1754, 1714 in fig. 17))connected to each of said housings for generating a closed space within a corresponding one of each of the enclosed spaces(see fig. 17 and see col. 13 line 55-col. 14 line 53).

Consider claim 24 Sheplak teaches the noise reduction apparatus wherein said control arrangement comprises control sections, with each of said control sections to be placed in a corresponding one of the enclosed spaces (see fig. 17 and see col. 13 line 55-col. 14 line 53).

Consider claims 25-26, as best understood with regards to the 112, 2nd problem mentioned above, Sheplak discloses a noise detector to be positioned outside the predetermined space, wherein said control arrangement is for generating control signals

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based on results corresponding to the sound as detected by said sound detectors and noise as detected by said noise detector (see fig. 10 and col. 13 line 20-30, col. 16 line 46- col. 17 line 40); and each of said control sound sources comprises a piezoelectric loudspeaker(see fig. 17 and see col. 14 line 59-col. 15 line 32).

Claims 28-36, they are essentially similar to claims 18-26 and are rejected for the reason stated above apropos to claims 28-36.

Consider claim 27 Sheplak teaches a noise reduction apparatus for reducing noise propagated toward a predetermined space on one side of a wall from an external noise source on another side of the wall (see fig. 17), comprising:

structure attached to a surface of said wall so as to generate enclosed spaces for noise reduction between said structure and said wall, said structure for facing the external noise source so as to block a noise propagation path (see fig. 17);

control sound sources(1718 in fig. 17) for radiating sound into said enclosed spaces; sound detectors (1762) within said enclosed spaces, respectively, for detecting sound propagated from the external noise source through said control sound sources; and

a control arrangement (1760) for causing said control sound sources to radiate sound into said enclosed spaces so as to minimize sound to be detected by said sound detectors, based on results corresponding to the sound as detected by said sound detectors(see fig. 17 and see col. 13 line 55-col. 14 line 53, col. 14 line 59-col. 15 line 32).

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***Response to Arguments***

7. Applicant's arguments with respect to claims 17-36 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Suzuki (US PAT. 5,377,275) is cited to show other related noise control apparatus.

10. Any response to this action should be mailed to:

Mail Stop \_\_\_\_ (explanation, e.g., Amendment or After-final, etc.)

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Facsimile responses should be faxed to:  
**(571) 273-8300**  
Hand-delivered responses should be brought to:  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao, Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao, Lun-See *L.S.*  
Patent Examiner  
US Patent and Trademark Office  
Knox  
571-272-7501  
Date 09-25-2007

  
VIVIAN CHIN  
SUPERVISOR PATENT EXAMINER  
TECHNOLOGY CENTER 2600